

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/24/08 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 11-14, 25-26 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 11-14, 25-26 rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi et al. (Hayashi) in view of Asada et al. (Asada). Hayashi discloses a substrate treatment apparatus comprising a liquid holding tank 12, a holding element that can raise and lower the substrate (col. 3 lines 59-60), liquid supply 44 delivering heated water, a drying chamber 16, and an outlet 62 that functions as an exhaust outlet. Hayashi also discloses an upper purge element 140. According to Hayashi, this allows particles to flow out of the chamber without adhering to the cleaned substrates (col. 11

line 23-41). The gas injected by the upper purge element moves downward, and then across the surface, in a parallel direction, towards the exhaust. Hayashi further discloses a heating element 122 and blower 138. Used in conjunction with controlling system 130, various parameters such as heat and humidity can be controlled. Hayashi does not disclose a lower purge element that injects a gas in this embodiment. In figure 6, Hayashi discloses a different embodiment with a lower purge element 26 located above the exhaust that injects the nitrogen gas, but lacks the upper purge element. It is obvious to one skilled in the art to combine both purge elements disclosed by Hayashi into the same embodiment. The claimed elements were known in the prior art and the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention. Furthermore, Asada discloses a substrate treatment apparatus that includes upper and lower purge elements. Asada shows a substrate treating apparatus with a process tank 26, a vertically movable holding element 25, a liquid supply element 29, a drying chamber 22, a purge element comprising four nozzles 33, 34, 35, and 36. The purge element injects an inert gas such as nitrogen, thus rendering a nitrogen supply part inherent. Nozzles 33 and 34 direct the gas in a downward direction, denoted by angle θ . Nozzles 35 and 36 direct the gas in a direction substantially parallel to the surface of fluid in the process tank, as denoted by angle ϕ . Asada et al. also discloses an exhaust element 37. Thus, it was known at the time of the invention to utilize upper and lower purge elements in order to inject gas both laterally and downwardly in the direction of a substrate. It would have been obvious at the time of the invention to modify Hayashi, and include combine the upper

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and lower purge elements disclosed in different embodiments into one purge element with upper and lower parts, as disclosed by Asada, in order to inject inert gas into the chamber for drying and post-treatment.

5. In regards to claim 25, duplication of parts was held to have been obvious. *St. Regis Paper Co. v. Beemis Co. Inc.* 193 USPQ 8, 11 (1977); *In re Harza* 124 USPQ 378 (CCPA 1960). Examiner doesn't find the inclusion of a second exhaust to be a patentably distinct feature over the prior art. A need for exhaust is known, and including as second port or exit is considered to be an obvious modification within the skill of one practicing the art.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON HECKERT whose telephone number is (571)272-2702. The examiner can normally be reached on Mon. to Friday, 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on (571)272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael Barr/
Supervisory Patent Examiner, Art
Unit 1792

JMH